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ABSTRACT

Reflected in this plan is the commitment to a comprehensive approach to environmental education by the Washington State Office of Public Instruction. It was developed with the philosophy that rational decisions regarding environmental management can be expected only when the general public acquires an understanding of the interdependence of all segments of the total environment. The need for and status of environmental education are explored along with the goals, objectives, and organizational scheme necessary for carefully planned educational programs. Activities allowing involvement and participation by students, educators, resource people, community individuals and organizations, industry, educational institutions, governmental agencies, the legislature, and Congress are outlined. Also, the plan provides for staff development, curriculum development, selection and production of resources (people, places, and media), and evaluation of both environmental education and the state plan itself. (BL)

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a state plan for

ENVIRONMENTAL EDUCATION

LOUIS BRUNO
STATE SUPERINTENDENT
OF PUBLIC INSTRUCTION

OLYMPIA, WASHINGTON

SE 012 324

Environmental Education is a study of the interrelationships of all the living and non-living components of the environment. It involves process and content from all of the disciplines. It is uniquely comprehensive and complex. It deals with human interactions and with the intricate implications of man's manipulation of the environment. It includes the cultivation of a dedicated commitment to the continuing improvement of the quality of our surroundings.

Because man is the only species with the moral conscience and technological competence needed for intentionally altering the quality of the environment, he has a very particular responsibility. Rational decisions regarding environmental management can be expected only when the general public acquires an understanding of the interdependence of all segments of our total environment, and it is toward this end that our efforts are directed.

FOREWORD

The quality of our environment is one of the crucially important factors determining our life styles and standard of living. Neglect, ignorance and irresponsible management could eventually lead to environmental degradation so extreme as to threaten the survival of all life forms on earth.

Carefully planned educational programs can provide our citizens with the understandings needed for a realistic balance between preservation and intelligent economic development. This plan reflects our commitment to a comprehensive approach to environmental education designed to serve the best interests of the total population of the State of Washington.

The position of Supervisor of Environmental Education and the development of this state plan were made feasible through the close cooperation of the State Office of Public Instruction and the State Department of Natural Resources. We wish to acknowledge particularly the generous support of Mr. Bert Cole, Commissioner of Public Lands, in helping to assure a sound beginning for environmental education programs. Interested organizations, individuals and agencies have played key roles in support of these endeavors. As this plan continues to evolve in response to changing needs, it should provide directions for environmental education programs of significance to our state, our region and our nation.

Louis Bruno

LOUIS BRUNO
State Superintendent
of Public Instruction

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I THE NEED FOR ENVIRONMENTAL EDUCATION

The deteriorating effects of our social, ecological and physical environment, apparent to all of us, imperil the quality of our lives and human survival. State and national polls indicate the concern and readiness of the general public to support efforts to improve the environment.

Emerging from this concern and readiness is not a new, but an extended approach to education -- ENVIRONMENTAL EDUCATION. The Office of the State Superintendent of Public Instruction holds a firm belief that environmental education MUST:

> Concern itself with the interdisciplinary relationships among social, ecological and physical factors which shape our total environment.
>
> Assure that every student in the State of Washington be provided with relevant learning experiences to promote understanding and responsibility for environmental quality, through an expanded and strengthened educational process.

II STATUS OF ENVIRONMENTAL EDUCATION

Historically, there has been a general commitment to help students acquire a better understanding of the total environment. This is reflected in the establishment of the position of Supervisor of Environmental Education in the Office of the State Superintendent of Public Instruction. The same type of interagency cooperation which made this position feasible has also led to agreements for the educational use of state parks as study sites. A statewide advisory board has been appointed, and its members are assisting with the implementation of a state plan for environmental education. The availability and quality of educational experiences for boys and girls throughout the state are obviously somewhat dependent upon legislative support and funding commitments.

The establishment of a Washington State Department of Ecology is also a significant indication of our determination to assure the state's citizens of a quality environment.

III GOALS

The goals of the plan are to:

-- Provide for meeting student needs

-- Facilitate the selection and development of program content

-- Aid in the improvement and maintenance of the environment

-- Provide for participation and involvement of:

Students
Teachers
Community
Institutions
Industry
Governmental:
agencies
legislature
congress

--Generate support and commitment of the individuals and groups mentioned above

--Provide teachers orientation and commitment to environmental studies

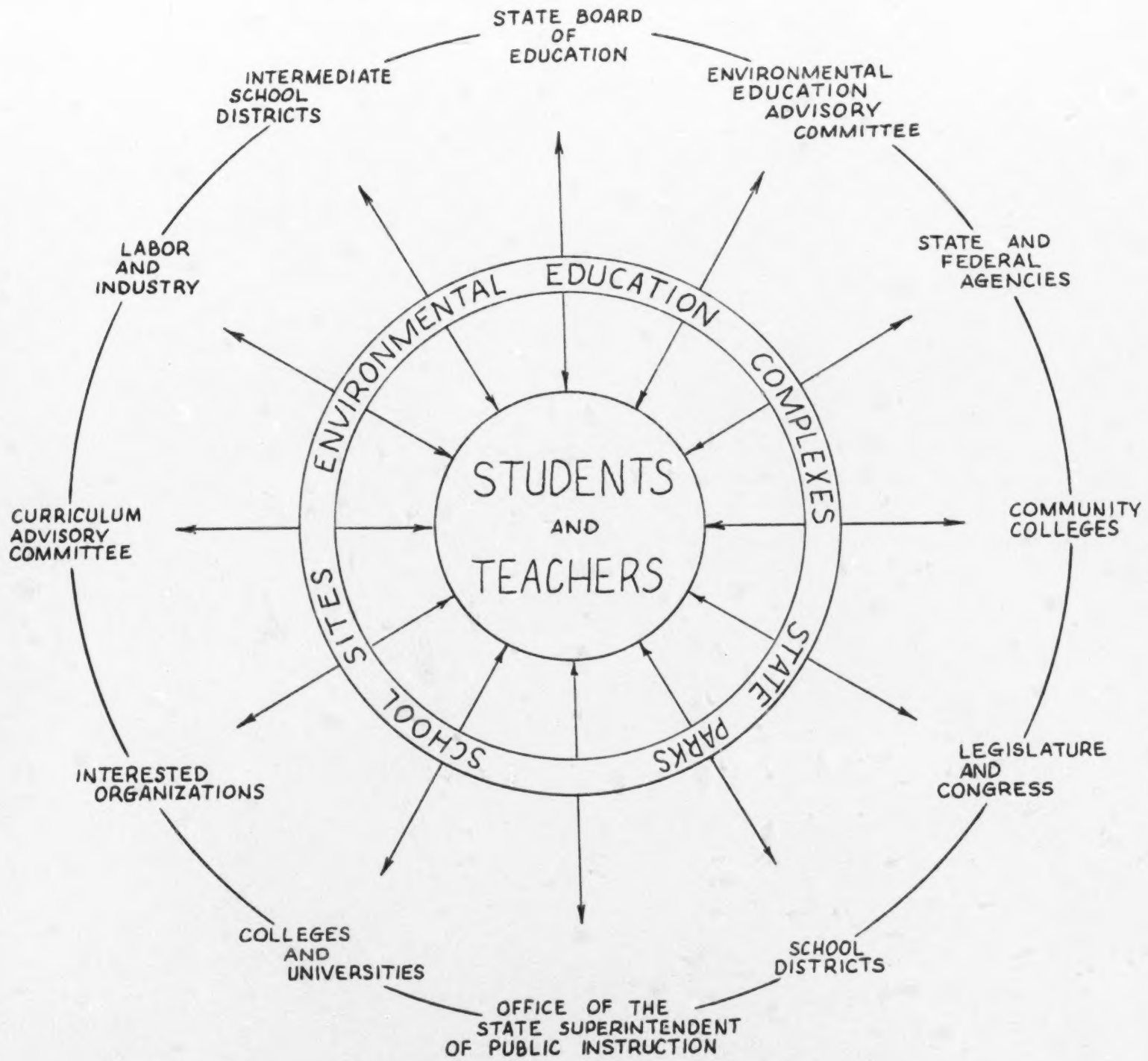
--Obtain interinstitutional cooperation

IV ORGANIZATIONAL SCHEME

Cooperation among the various kinds of groups, as indicated by the diagram on the following page, is an important facet of this scheme. Environmental complexes in certain geographic areas of the state would have organizing centers to coordinate the activities within the region. The Office of the State Superintendent of Public Instruction will share the responsibility for the coordination of the interrelating components within and among the complexes.

ENVIRONMENTAL EDUCATION

STATE OF WASHINGTON



IV A. INVOLVEMENT AND PARTICIPATION

Since people's beliefs and understandings influence their behaviors, there is a definite need to involve individuals personally in experiences through which they will acquire a better grasp of environmental concepts and interrelationships. Students and teachers are the principal target groups for such meaningful involvement.

Success in these endeavors is directly dependent upon the cooperative efforts of:

-- *Students in:*

Development of curriculum
Design of learning activities
Workshops
Community action
Production and selection of learning resources
Development of communications
Evaluation

-- *Educators in:*

Development of curriculum
Design of learning activities
Production of learning materials
Workshops
Community action
Development of learning experiences
Development of behavioral objectives
Evaluation

-- *Resource people in:*

Development of curriculum
Design of learning activities
Identification of learning environments
Workshops
Community action
Conducting learning experiences
Development of learning materials
Evaluation

-- *Community (individuals and organizations) in:*

Development of curriculum goals and objectives
Roles as resource people
Communication and identification of needs, feelings and findings
Generating public support and cooperation
Evaluation

-- *Industry in:*

Development of curriculum goals and objectives
Community action
Provision of resources for learning
Support
Communication
Evaluation

-- *Educational institutions in:*

Program design for preservice and inservice education
Evaluation design
Research
Communication
Providing learning resources
Developing behavioral objectives
Interinstitutional cooperation

-- *Governmental agencies (local, state and federal) in:*

Providing resources for learning
Technical assistance
Providing learning facilities
Providing financial support

-- *The legislature in:*

Provision of supportive legislation
Creation of understanding and commitment
Provision of financial support

-- *Congress in:*

Supportive legislation
Provision of financial support

IV B. STAFF DEVELOPMENT

The plan provides for the development of workshops throughout the state. Participants in these workshops should consist of teams and individuals. Participants would be committed to the training of others to meet specific needs of students, teachers and program development.

Needs are known to exist in the following areas:

-- *Learning strategies:*

Problem solving
Inquiry training
Taba's higher thought processes
Developing creativity
Questioning
Perception training
Student involvement
Simulation

-- *Cognitive, affective and psychomotor domains:*

The "stuff" of social environment
The physical environment
Ecology

-- *Development of behavioral objectives for:*

Students
Teachers

-- *The use of real learning situations in:*

Rural and urban settings
The classroom
A wide range of social and cultural groups
Industry and related technology
Natural and altered environments
The governmental system
The educational system

-- *Development of specific learning experiences*

-- *Development of evaluation designs and instruments*

-- *Re-inforcing learning by immediate application*

-- *Assessment of evolving needs*

-- *Selection and production of learning resources*

IV C. CURRICULUM DEVELOPMENT

The development of curriculum should not occur in isolation. Coordination could be strengthened by involving people at building, district, intermediate school district, regional complex and state levels. The curriculum must provide a K-12 program if we are to give boys and girls a reasonable opportunity to contribute to the improvement of the total environment. When learning activities use environmental issues as a focus they are more real to the student. The study of environmental problems should be open ended and is often more efficient if it takes place outside the classroom.

Guidelines for curriculum development and other materials will be prepared by the Washington State Environmental Education Curriculum Advisory Committee.

Consultative services are available from the Office of the State Superintendent of Public Instruction.

Statewide workshops, properly coordinated and organized, should be provided so as to make an immediate impact on the learning of boys and girls.

The process of curriculum development is enhanced when the:

-- *Students are involved in:*

The establishment of objectives
Selection of appropriate curriculum content
Design of learning experiences
Evaluation of curriculum and their own learning
Assessment of their own needs

-- *Characteristics of learners at various ages are used to:*

Serve as a source of behavioral objectives
Serve as a source of objectives that cannot be readily stated in behavioral terms

-- *Conceptual schemes are identified to:*

Serve as a framework around which to develop curriculum

-- *Curriculum reflects a variety of learning strategies*

-- *Interdisciplinary approaches are used in program development*

-- *The courses are designed to meet assessed needs of:*

Students
Teachers
Programs
Environments

-- *Curriculum includes the interrelationships among social, ecological, and physical factors*

IV D. SELECTION AND PRODUCTION OF RESOURCES

Learners need a large number of real, concrete, first-hand experiences before they can learn from abstractions and symbols. This principle points to the need for a wide range of resources. These should include people, places and media.

Utilization, selection and production of these resources will be facilitated by:

-- *The development of a comprehensive inventory of sites (places) where environmental education may be most productive:*

Where real problems can be studied
Where solutions to problems may be observed and tested
Where interrelated factors may be studied

-- *Lists of resource people indicating:*

Their particular expertise
How, when and where

-- *The selection of media appropriate to the learning activities which consider:*

Learners
Objectives
Characteristics of the medium
Message

-- *Production of learning materials when:*

Not available from other sources
Production enhances learning

-- *Selection and production of resources:*

Are the resources appropriate?
To what extent is the multiple place-site concept functional?
Is the supply sufficient?
To what extent do the resources contribute to the specified learnings?

-- *Means of evaluation:*

Are the evaluation instruments appropriate?
To what extent is the total evaluation productive?

-- *Support and commitment:*

Are support and commitment attributable to program?
Are the devices used in this evaluation doing the job?

-- *Place-sites*

-- *Extent to which the multiple place-site concept is functional*

-- *Extent to which the state plan, as a whole, is functional*

V EVALUATION

Evaluation of environmental education should be an integral part of all phases of the plan. Used as a part of a system, it will result in continuing revision of that system so that it grows more powerful with use.

Evaluation of environmental education and the state plan should include an assessment of:

-- *Needs associated with environmental education:*

Are they being satisfied?
Do they still exist?
Are they new ones?
Are they used in curriculum development?
Are they considered in selecting learning strategies?
Are resources selected or produced that satisfy the specified needs?
Are they consistent with needs assessments?

-- *Goals and objectives:*

Are they appropriate?
Should some be deleted?
Should others be added?

-- *Involvement and participation:*

Are the related goals appropriate?
Are involvement and participation being achieved?

-- *Staff development:*

Are educators participating in workshops?
What is the pattern of coverage throughout the state?
To what extent is the "stuff" of workshops being used with students?

-- *Curriculum development:*

To what extent is the curriculum appropriate?
Are there specific changes that should be made?